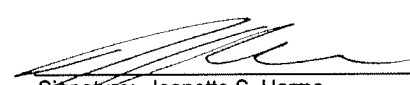| PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) ATH-0133

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ **FILED ELECTRONICALLY** _____ Signature _____ Typed or printed name	Appln. No 10/664,792	Filed 09/16/2003
	First Named Inventor Won-Joon Choi et al.	
	Art Unit 2611	Examiner Jason M. Perilla

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reasons(s) stated on the attached sheet(s).
         Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
   See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
   (Form PTO/SB/96)

☒ attorney or agent of record.
   Registration number: 35537

☐ attorney or agent acting under 37 CFR 1.34.

   Registration number if acting under 37 CFR 1.34 _____

Signature: Jeanette S. Harms

Telephone number: 408-451-5907

Date May 2, 2008

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐   *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Won-Joon Choi et al.

Assignee: Atheros Communications, Inc.

Title: Spur Mitigation Techniques

Serial No.:   10/664,792   File Date: September 16, 2003

Examiner: Jason M. Perilla   Art Unit: 2611

Docket No.:   ATH-0133

                                              Date: May 2, 2008

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF

Appellant respectfully submits that the rejection of Claims
1-6 is in clear error. Claims 1-3, 5, and 6 are rejected under
35 U.S.C. 103(a) as being rendered obvious by U.S. Publication
2003/0231582 (Logvinov) in view of U.S. Patent 6,934,340
(Dollard). Claim 4 is rejected under 35 U.S.C. 103(a) as being
rendered obvious by Logvinov, Dollard, and U.S. Publication
2004/0081076 (Goldstein).

1. (Previously Presented) A method of improving receiver performance by avoiding bad pilots, the method comprising:

generating a pilot mask for immediate data communication use in the receiver based solely on analysis at the receiver,

wherein the pilot mask includes a set of flags, the set of flags associated with certain sub-channels,

wherein each flag in the set of flags determines whether its associated sub-channel is usable for pilot tracking, wherein at least one flag indicates its associated sub-channel is not usable for pilot tracking, thereby allowing the receiver to avoid a bad pilot.

6. (Previously Presented) A pilot mask for improving receiver performance by avoiding bad pilots, the pilot mask comprising:

a set of flags generated in the receiver for immediate data communication use based solely on analysis at the receiver, the set of flags associated with certain sub-channels, wherein each flag in the set of flags determines whether its associated sub-channel is usable for pilot tracking.

<u>Claims 1-3, 5, and 6 are patentable over Logvinov and Dollard</u>

Claim 1 recites in part, "generating a pilot mask for immediate data communication use in the receiver based solely on analysis at the receiver". Appellant respectfully submits that neither Logvinov nor Dollard teach this limitation.

Logvinov teaches that the receiver gathers channel data during periods when transmitters occupy the channel as well as times when the channel is idle. [0016] Channel data from the transmitter the receiver is communicating with, as well as all other transmitters, can be used to improve an error rate of the

receiver. [0039] Loginov trys to minimize the number of pilot tones, wherein the pilot tones are used for synchronization. [0042] To this end, Loginov analyzes the channel and selects the minimum number of pilot tones required (such that most of the tones are received by all nodes of the system). [0042] Loginov teaches that the system may reallocate pilot tones. [0042] This same approach is applicable for determining the presence of narrow and wide band interferers. [0043] Logvinov uses the gathered data to improve receiver effectiveness and avoid interference. [0016 and 0043].

The Examiner states that Logvinov fails to teach the limitations recited in Claim 1 (including the above-quoted limitation). The Examiner then cites Dollard as teaching this limitation of Claim 1. Appellant respectfully traverses this characterization based on the below remarks.

Dollard generates a bitmap that is indicative of usable and unusable sub-carriers based on analysis at a first communication device C1 and then sends that initial bitmap to a second communication device C2. Col. 7, lines 30-38. This bitmap is transmitted to C2 using a plurality of sub-carriers, including those not suitable for reception by the first communication device C1 as they may be suitable for reception by the second communication device C2. Col. 7, lines 39-44. The second communication device C2 then determines which sub-carriers are unsuitable for C2 and modifies the bitmap to reflect any such unsuitable sub-carriers. Col. 8, lines 13-20. If the bitmap is not modified, then the second communication device can merely send the first communication device back an ACK signal. Col. 8, lines 20-22. If the bitmap is modified, then this bitmap is sent back to the first communication device to establish the sub-carriers to be used for data transfers between the devices. Col. 8, lines 23-28 (e.g. see Fig. 3 that indicates "Commence

(SN: 10/664,792)

Data Communication" after step 74). Thus, Dollard teaches a bitmap that requires analysis and input from two communication devices before data communication can begin.

In contrast, in Appellant's method, the pilot mask used for data communication can be generated based only on analysis at the receiver. Notably, once generated, this pilot mask can immediately be used for data communication without input from another communication device. Therefore, this method is more efficient than either Logvinov or Dollard, both of which teach techniques that use analysis from a transmitter and a receiver.

Because Logvinov and Dollard fail to disclose or suggest the recited step of generating or appreciate its advantages, Appellant requests reconsideration and withdrawal of the rejection of Claim 1.

Claims 2-3 and 5 depend from Claim 1 and therefore are patentable for at least the reasons presented for Claim 1. Based on those reasons, Appellant requests reconsideration and withdrawal of the rejection of Claims 2-3 and 5.

Claim 6 recites, "a set of flags generated in the receiver for immediate data communication use based solely on analysis at the receiver". Therefore, Claim 6 is patentable for substantially the same reasons presented for Claim 1. Based on those reasons, Appellant requests reconsideration and withdrawal of the rejection of Claim 6.

Claim 4 is patentable over Logvinov, Dollard, and Goldstein

Claim 4 depends from Claim 1 and therefore is patentable for at least the reasons presented for Claim 1. Goldstein fails to remedy the deficiencies of Logvinov and Dollard with respect to Claim 1. Specifically, Goldstein also fails to disclose or suggest "generating a pilot mask for immediate data communication use in the receiver based solely on analysis at

the receiver". Because none of the cited references disclose or suggest this limitation, Appellant requests reconsideration and withdrawal of the rejection of Claim 4.

CONCLUSION

Claims 1-6 are pending in the present application. Appellant respectfully submits that the rejection of Claims 1-6 is in error. Therefore, allowance of these claims is respectfully requested.

Respectfully submitted,

Customer No.:30547

Jeanette S. Harms
Attorney for Appellant
Reg. No. 35,537